



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : John V. Frangioni, et al. Art Unit : 1773
Serial No. : 10/772,425 Examiner : Hoa T. Le
Filed : February 6, 2004 Docket No.: 14952.0319
Title : MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED
LYMPH NODE MAPPING

U.S. Patent and Trademark Office

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Customer Service Window
Randolph Building
401 Dulaney Street
Alexandria, VA 22314

TERMINAL DISCLAIMER UNDER 37 CFR §§3.73(b) AND 1.321(c)

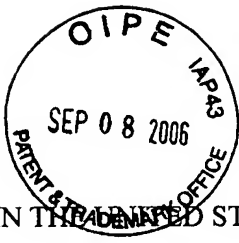
Pursuant to 37 CFR §3.73(b), Massachusetts Institute of Technology and Beth Israel Deaconess Medical Center, Inc. certify they are the assignees of the entire right, title, and interest in the above application by virtue of assignments from the inventors of a priority application of the patent application identified above. The assignments from the inventors of the patent application identified above were recorded at the Patent and Trademark Office at reel/frame numbers 015693/0123 and 015695/0781, respectively. Copies of the recorded assignments are enclosed for reference.

Also pursuant to 37 CFR §3.73(b), Massachusetts Institute of Technology and Beth Israel Deaconess Medical Center, Inc. certify they are the assignees of the entire right, title, and interest in the above application by virtue of assignments from the inventors of a priority application of U.S. Application Serial No. 10/772,424. The assignments from the inventors of U.S. Application Serial No. 10/772,424 were recorded at the Patent and Trademark Office at reel/frame numbers 015695/0756 and 015695/0760, respectively. Copies of the recorded assignments are enclosed for reference.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in Massachusetts Institute of Technology and Beth Israel Deaconess Medical Center, Inc.

The undersigned, whose title is supplied below, is empowered to act on behalf of the assignees.

Pursuant to 37 CFR §1.321(c), and to obviate a double patenting rejection, the assignees identified above hereby waive and disclaim the terminal portion of the term of the entire patent to be granted upon the above identified application subsequent to the expiration date of the U.S. Patent that issues from U.S. Application Serial No. 10/772,424 whereby the patent granted on this application and the U.S. Patent that issues from U.S. Application Serial No. 10/772,424 will expire on the



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Serial No. : 10/772,425 Examiner : Hoa T. Le
Filed : February 6, 2004 Docket No.: 14952.0319
Title : MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED LYMPH
NODE MAPPING

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The undersigned, whose title is supplied below, is empowered to act on behalf of the assignees.

Pursuant to 37 CFR §1.321(c), and to obviate a double patenting rejection, the assignees identified above hereby waive and disclaim the terminal portion of the term of the entire patent to be granted upon the above identified application subsequent to the expiration date of the

U.S. Patent that issues from U.S. Application Serial No. 10/772,424 whereby the patent granted on this application and the U.S. Patent that issues from U.S. Application Serial No. 10/772,424 will expire on the same day, provided that any patent granted on the above identified application shall be enforceable only for and during such period that it is commonly owned with the U.S. Patent that issues from U.S. Application Serial No. 10/772,424.

The assignees identified above do not disclaim any terminal part of any patent granted on the above identified application prior to the expiration date of the full statutory term of the U.S. Patent that issues from U.S. Application Serial No. 10/772,424 in the event that it later: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR §1.321(a), has all claims cancelled by a reexamination certificate, or is otherwise terminated prior to expiration of its statutory term, except for the separation of legal title as stated above. Assignees herein do not disclaim or otherwise affect any part of the U.S. Patent that issues from U.S. Application Serial No. 10/772,424.


This disclaimer runs with any patent granted on the above application and is binding upon the grantee, its successors or assigns.

Please apply any charges or credits to deposit account 19-4293, referencing **Attorney Docket No. 14952.0319**.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Date: 9-8-06



Harold H. Fox
Reg. No. 41,498

Steptoe & Johnson LLP
1330 Connecticut Avenue, NW
Washington, DC 20036-1795
Phone: 202-429-3000
Fax: 202-429-3902



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

FEBRUARY 22, 2005

STEPTOE & JOHNSON LLP
HAROLD H. FOX
1330 CONNECTICUT AVENUE, NW
WASHINGTON, DC 20036

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UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/19/2004

REEL/FRAME: 015693/0123
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
BAWENDI, MOUNGI G.

DOC DATE: 08/05/2004

ASSIGNOR:
KIM, SUNGJEE

DOC DATE: 08/10/2004

ASSIGNEE:
MASSACHUSETTS INSTITUTE OF
TECHNOLOGY
77 MASSACHUSETTS AVENUE
CAMBRIDGE, MASSACHUSETTS 02142-1324

SERIAL NUMBER: 10772425

FILING DATE: 02/06/2004

PATENT NUMBER:

ISSUE DATE:

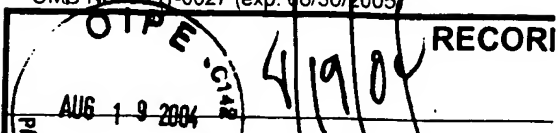
TITLE: MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED LYMPH NODE MAPPING

015693/0123 PAGE 2

TONYA LEE, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

08-24-2004

U.S. DEPARTMENT OF COMMERCE
Patented States Patent and Trademark Office



102819953

To the Director of the U.S. of Patents and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):

Moungi G. BAWENDI
Sungjee KIM

Execution Date(s): 08/05/2004 and 08/10/2004

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other

2. Name and address of receiving party(ies)

Name: Massachusetts Institute of Technology

Internal Address:

Street Address: 77 Massachusetts Avenue

City: Cambridge

State: MA Zip: 02142-1324

Country: United States of America

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

10/772,425

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: STEPTOE & JOHNSON LLP

Internal Address: Attn: Docket Administrator - Box USPTO

Street Address: 1330 Connecticut Avenue, NW

City: Washington

State: DC Zip: 20036

Phone Number: 202-429-3000

Fax Number: 202-429-3902

Email Address:

6. Total number of applications and patents involved: -1-

7. Total Fee (37 CFR 1.21(h) & 3.41)\$40.00

- ☐ Authorized to be charged by credit card
☐ Authorized to be charged to deposit account
☒ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number 19-4293
Authorized User Name: Steptoe & Johnson LLP

(missing fees or deficiencies only)

Atty Dkt. 14952.0319

9. Signature:

Signature

Date

Harold H. Fox, Reg. No. 41,498

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

-4-

ASSIGNMENT

For valuable consideration, we, MOUNGI G. BAWENDI of Boston, MA, and SUNGJEE KIM of Cambridge, MA, hereby assign to: Massachusetts Institute of Technology, a corporation of Massachusetts; its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of applications for United States Patent signed by us, entitled MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED LYMPH NODE MAPPING, filed February 6, 2004, and assigned U.S. Serial Number 10/772,425, and we authorize and request the attorneys appointed in said applications to hereafter complete these assignments by inserting above the filing date and serial number of said applications when known; these assignments including said applications, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said applications under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully these assignments.

IN WITNESS WHEREOF, I hereto set my hand and seal at Cambridge Massachusetts,
this 5th day of August, 20 07
Mg. Bawendi L.S.
MOUNGI G. BAWENDI

State of Massachusetts :

: ss.

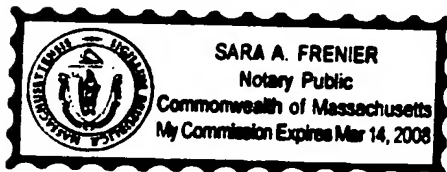
County of Middlesex :

Before me this 5th day of August, 20 07, personally
appeared MOUNGI G. BAWENDI known to me to be the person whose name is subscribed to
the foregoing Assignment and acknowledged that he executed the same as his free act and deed
for the purposes therein contained.

Sara A. Frenier
Notary Public

My Commission Expires: March 14, 2008

[Notary's Seal Here]



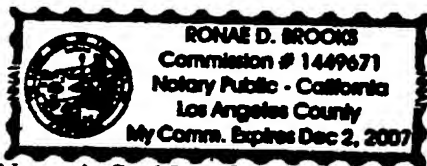
IN WITNESS WHEREOF, I hereto set my hand and seal at Pasadena, California
this 10th day of August, 2004
[Signature] L.S.
SUNGJEE KIM

State of California :

: ss.

County of Los Angeles :

Before me this 10 day of August, 2004, personally
appeared SUNGJEE KIM known to me to be the person whose name is subscribed to the
foregoing Assignment and acknowledged that he executed the same as his free act and deed for
the purposes therein contained.



[Notary's Seal Here]

Ronae D. Brooks
Notary Public

My Commission Expires: 12/7/07



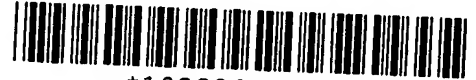
UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

FEBRUARY 23, 2005

STEPTOE & JOHNSON LLP
HAROLD H. FOX
1330 CONNECTICUT AVENUE, NW
WASHINGTON, DC 20036

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RECORDATION DATE: 08/18/2004

REEL/FRAME: 015695/0781
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
FRANGIONI, JOHN V.

DOC DATE: 08/06/2004

ASSIGNOR:
LIM, YONG TAIK

DOC DATE: 08/10/2004

ASSIGNEE:
BETH ISRAEL DEACONESS MEDICAL
CENTER, INC.
330 BROOKLINE AVENUE
BOSTON, MASSACHUSETTS 02215

SERIAL NUMBER: 10772425

FILING DATE: 02/06/2004

PATENT NUMBER:

ISSUE DATE:

TITLE: MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED LYMPH NODE
MAPPING

015695,0781 PAGE 2

VIOLET MCCOY, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

08-24-2004

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

AUG 18 2004

RECC



102820275

To the Director of the U.S. of Patents and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):

John V. FRANGIONI
Yong Taik LIM

8-18-04

Execution Date(s): 08/06/2004 and 08/10/2004

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other

2. Name and address of receiving party(ies)

Name: Beth Israel Deaconess Medical Center, Inc.

Internal Address:

Street Address: 330 Brookline Avenue

City: Boston

State: MA Zip: 02215

Country: United States of America

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

10/772,425

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: STEPTOE & JOHNSON LLP

Internal Address: Attn: Docket Administrator - Box USPTO

Street Address: 1330 Connecticut Avenue, NW

City: Washington

State: DC Zip: 20036

Phone Number: 202-429-3000

Fax Number: 202-429-3902

Email Address:

6. Total number of applications and patents involved: -1-

7. Total Fee (37 CFR 1.21(h) & 3.41) \$40.00

- ☐ Authorized to be charged by credit card
☐ Authorized to be charged to deposit account
☒ Enclosed
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b. Deposit Account Number 19-4293
Authorized User Name: Steptoe & Johnson LLP

(missing fees or deficiencies only)

Atty Dkt. 14952.0319

9. Signature:

Signature

8-18-04

Date

Harold H. Fox, Reg. No. 41,498

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

-4-

ASSIGNMENT

For valuable consideration, we, JOHN V. FRANGIONI of Wayland, MA, and YONG TAIK LIM of Cheonju, REPUBLIC OF KOREA, hereby assign to: Beth Israel Deaconess Medical Center, Inc., a corporation of Massachusetts its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED LYMPH NODE MAPPING, filed February 6, 2004, and assigned U.S. Serial Number 10/772,425, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

IN WITNESS WHEREOF, I hereto set my hand and seal at Boston, MA,
this 6th day of AUGUST, 2004 [Signature] L.S.
JOHN V. FRANGIONI

State of MASSACHUSETTS:

: ss.

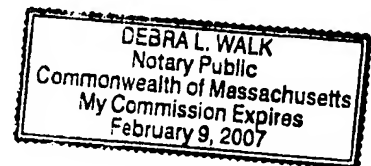
County of SUFFOLK :

Before me this 6th day of AUGUST, 2004, personally
appeared JOHN V. FRANGIONI known to me to be the person whose name is subscribed to the
foregoing Assignment and acknowledged that he executed the same as his free act and deed for
the purposes therein contained.

Debrah Walk
Notary Public

My Commission Expires:

[Notary's Seal Here]



IN WITNESS WHEREOF, I hereto set my hand and seal at Daejeon, South Korea,
this 10 day of August, 2004
Yong Taik Lim
YONG TAIK LIM

Signature witnessed by:

10. August. 2004
Date

WITNESS: Jin Young Jeong
Printed Name: Jin Young Jeong
Address: 620-55 Ang-san-dong
Buk-gu Kwang-Ju
South Korea.

Signature witnessed by:

10, August, 2004.
Date

WITNESS: Jin Kyeong Kim
Printed Name: Jin Kyeong Kim
Address: 2-5 Won-mi-dong, Won-mi-gu,
Kyung-gi-do, South Korea.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

FEBRUARY 23, 2005

STEPTOE & JOHNSON LLP
1330 CONNECTICUT AVENUE, NW
WASHINGTON, DC 20036

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RECORDATION DATE: 08/18/2004

REEL/FRAME: 015695/0756
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
BAWENDI, MOUNGI G.

DOC DATE: 08/05/2004

ASSIGNOR:
KIM, DUNGJEE

DOC DATE: 08/05/2004

ASSIGNEE:
MASSACHUSETTS INSTITUTE OF
TECHNOLOGY
77 MASSACHUSETTS AVENUE
CAMBRIDGE, MASSACHUSETTS 02142-1324

SERIAL NUMBER: 10772424

FILING DATE: 02/06/2004

PATENT NUMBER:

ISSUE DATE:

TITLE: MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED INTRAVASCULAR IMAGING

015695/0756 PAGE 2

DOROTHY RILEY, PARALEGAL
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

08-24-2004

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

AUG 18 2004

RECOR



102820274

To the Director of the U.S. of Patents and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):

Moungi G. BAWENDI
Sungjee KIM

8-18-04

Execution Date(s): 08/05/2004 and 08/10/2004

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☐ Security Agreement ☐ Change of Name
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: Massachusetts Institute of Technology

Internal Address: _____

Street Address: 77 Massachusetts Avenue

City: Cambridge

State: MA Zip: 02142-1324

Country: United States of America

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

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B. Patent No.(s)

10/772,424

Additional numbers attached? ☐ Yes ☒ No

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Internal Address: Attn: Docket Administrator - Box USPTO

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City: Washington

State: DC Zip: 20036

Phone Number: 202-429-3000

Fax Number: 202-429-3902

Email Address: _____

6. Total number of applications and patents involved: -1-

7. Total Fee (37 CFR 1.21(h) & 3.41) \$40.00

- ☐ Authorized to be charged by credit card
☐ Authorized to be charged to deposit account
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☐ None required (government interest not affecting title)

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Expiration Date _____

b. Deposit Account Number 19-4293
Authorized User Name: Steptoe & Johnson LLP

(missing fees or deficiencies only)

Atty Dkt. 14952.0320

9. Signature: _____

Signature

Date

Harold H. Fox, Reg. No. 41,498

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

-4-

ASSIGNMENT

For valuable consideration, we, MOUNGI G. BAWENDI of Boston, MA, and SUNGJEE KIM of Cambridge, MA, hereby assign to: Massachusetts Institute of Technology, a corporation of Massachusetts; its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of applications for United States Patent signed by us, entitled MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED INTRAVASCULAR IMAGING, filed February 6, 2004, and assigned U.S. Serial Number 10/772,424, and we authorize and request the attorneys appointed in said applications to hereafter complete these assignments by inserting above the filing date and serial number of said applications when known; these assignments including said applications, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said applications under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully these assignments.

IN WITNESS WHEREOF, I hereto set my hand and seal at Cambridge, Massachusetts,
this 5th day of August, 2007
M. G. Bawendi L.S.
MOUNGI G. BAWENDI

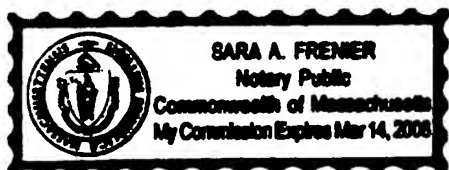
State of Massachusetts :
: ss.

County of Middlesex :

Before me this 5th day of August, 2007, personally
appeared MOUNGI G. BAWENDI known to me to be the person whose name is subscribed to
the foregoing Assignment and acknowledged that he executed the same as his free act and deed
for the purposes therein contained.

Sara A. Frier
Notary Public
My Commission Expires: March 14, 2008

[Notary's Seal Here]

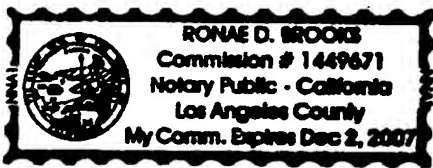


IN WITNESS WHEREOF, I hereto set my hand and seal at Pasadena, California
this 10th day of August, 2004
[Signature] L.S.
SUNGJEE KIM

State of California :
: ss.

County of Los Angeles :

Before me this 10 day of August, 2004, personally
appeared SUNGJEE KIM known to me to be the person whose name is subscribed to the
foregoing Assignment and acknowledged that he executed the same as his free act and deed for
the purposes therein contained.



Ronae D. Brooks
Notary Public
My Commission Expires: 12/2/07

[Notary's Seal Here]



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

FEBRUARY 23, 2005

PTAS



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STEPTOE & JOHNSON LLP
ATTN: DOCKET ADMINISTRATOR-BOX USPTO
1330 CONNECTICUT AVENUE NW
WASHINGTON, DC 20036

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/18/2004

REEL/FRAME: 015695/0760
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

FRANGIONI, JOHN V.

DOC DATE: 08/06/2004

ASSIGNOR:

LIM, YONG TAIK

DOC DATE: 08/10/2004

ASSIGNEE:

BETH ISRAEL DEACONESS MEDICAL
CENTER, INC.
330 BROOKLINE AVENUE
BOSTON, MASSACHUSETTS 02215

SERIAL NUMBER: 10772424

FILING DATE: 02/06/2004

PATENT NUMBER:

ISSUE DATE:

TITLE: MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED INTRAVASCULAR IMAGING

015695/0760 PAGE 2

VIOLET MCCOY, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

08-24-2004

RECORD

AUG 18 2004

8.1804 P



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To the Director of the U.S. of Patents and Trademark

the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):

John V. FRANGIONI
Yong Taik LIM

Execution Date(s): 08/06/2004 and 08/10/2004

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other

2. Name and address of receiving party(ies)

Name: Beth Israel Deaconess Medical Center, Inc.

Internal Address:

Street Address: 330 Brookline Avenue

City: Boston

State: MA Zip: 02215

Country: United States of America

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

10/772,424

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: STEPTOE & JOHNSON LLP

Internal Address: Attn: Docket Administrator - Box USPTO

Street Address: 1330 Connecticut Avenue, NW

City: Washington

State: DC Zip: 20036

Phone Number: 202-429-3000

Fax Number: 202-429-3902

Email Address:

6. Total number of applications and patents involved: -1-

7. Total Fee (37 CFR 1.21(h) & 3.41) \$40.00

- ☐ Authorized to be charged by credit card
☐ Authorized to be charged to deposit account
☒ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number 19-4293
Authorized User Name: Steptoe & Johnson LLP

(missing fees or deficiencies only)

Atty Dkt. 14952.0320

9. Signature:

Signature

8-18-04

Date

Harold H. Fox, Reg. No. 41,498

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

-4-

ASSIGNMENT

For valuable consideration, we, JOHN V. FRANGIONI of Wayland, MA, and YONG TAIK LIM of Cheonju, REPUBLIC OF KOREA, hereby assign to: Beth Israel Deaconess Medical Center, Inc., a corporation of Massachusetts, its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of applications for United States Patent signed by us, entitled MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED INTRAVASCULAR IMAGING, filed February 6, 2004, and assigned U.S. Serial Number 10/772,424, and we authorize and request the attorneys appointed in said applications to hereafter complete these assignments by inserting above the filing date and serial number of said applications when known; these assignments including said applications, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said applications under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully these assignments.

IN WITNESS WHEREOF, I hereto set my hand and seal at Boston, MA
this 6th day of AUGUST, 20 04

JOHN V. FRANGIONI

[Signature] L.S.

State of MASSACHUSETTS:

: ss.

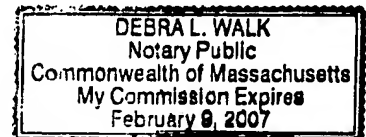
County of SUFFOLK :

Before me this 6th day of AUGUST, 20 04, personally
appeared JOHN V. FRANGIONI known to me to be the person whose name is subscribed to the
foregoing Assignment and acknowledged that he executed the same as his free act and deed for
the purposes therein contained.

[Signature]
Notary Public

My Commission Expires:

[Notary's Seal Here]



IN WITNESS WHEREOF, I hereto set my hand and seal at Daejeon, South Korea
this 10 day of August, 2004
Yong Taik Lim
YONG TAIK LIM

Signature witnessed by:

10. August, 2004
Date

WITNESS: Jim Young Jeong
Printed Name: Jim Young Jeong
Address: 620-5 Ang-san-dong
Buk-gu Kwang-ju
South Korea.

Signature witnessed by:

10. August, 2004
Date

WITNESS: Jim Kyeong Kim
Printed Name: Jim Kyeong Kim
Address: 25 Won-mi-dong, Won-mi-gu,
kyung-gi-do, South Korea.